

**INTERPROCESSOR COMMUNICATION PROTOCOL  
WITH SMART STREAMING PORT**

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**ABSTRACT OF THE INVENTION**

An IPC protocol in one embodiment of the invention includes smart hardware ports such as SSI port (1610). The session manager (1608) includes the capability for negotiating with components such as software threads (1602-1606) in order for a port  
10 (1610) to be dedicated to a particular task. The port dedication negotiation process allows for the session manager (1608) which is part of IPC stack (1610) to check for any conflicts the port may have with other op-codes currently dedicated to the port. The session manager (1608) can forward a command block along with the data received from each software thread. The command block informs the SSI port (1610)  
15 of any co-processing it may need to perform to the data.